

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
10 February 2005 (10.02.2005)

PCT

(10) International Publication Number
WO 2005/012978 A1

(51) International Patent Classification⁷: **G02B 26/12**

(21) International Application Number:
PCT/DK2004/000453

(22) International Filing Date: 25 June 2004 (25.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PA 2003 01045 8 July 2003 (08.07.2003) DK

(71) Applicant (for all designated States except US):
ESKO-Graphics A/S [DK/DK]; Industriparken
35-37, DK-2750 Ballerup (DK).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BALLEGAARD**,
Hans, Peter [DK/DK]; Toften 1, DK-8520 Lystrup
(DK). **ANDERSEN**, Brian [DK/DK]; Solbærhaven 150,
DK-8520 Lystrup (DK). **BØGH**, Niels-Søren [DK/DK];
Granvej 1get 30, DK-8370 Hadsten (DK).

(74) Agent: **ZACCO DENMARK A/S**; Hans Bekkevolds Allé
7, DK-2900 Hellerup (DK).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

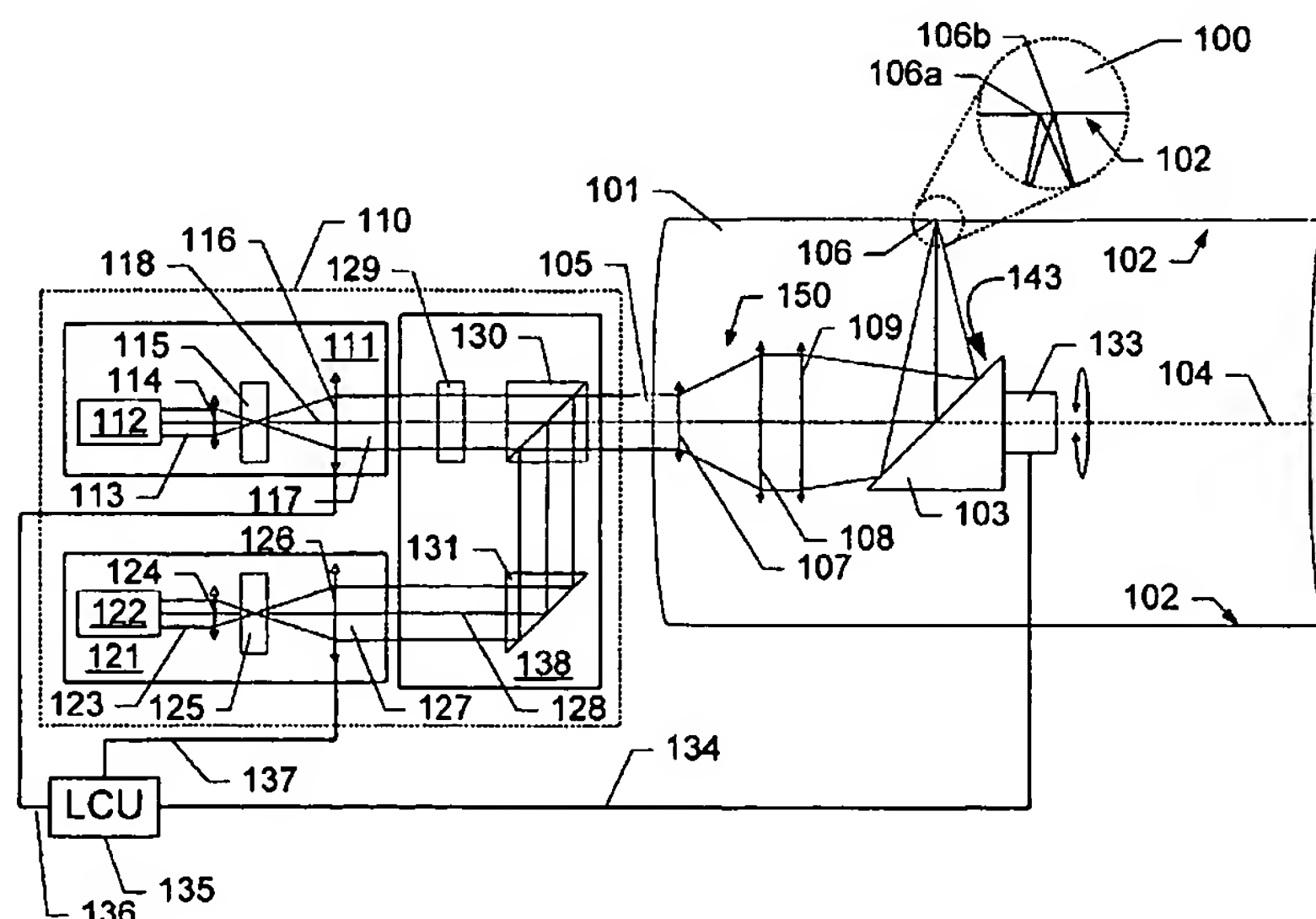
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: MULTIBEAM INTERNAL DRUM SCANNING SYSTEM



(57) Abstract: An internal drum scanning system comprising a cylinder with an imaging surface, a laser source for generating a first and a second laser beam, a rotating deflector for deflecting the beams towards said imaging surface, a focussing lens for focussing the laser beams onto respective positions on said imaging surface, and a controllable optical elements which, during operation, is positioned such that its optical axis is displaced from the optical axis of the focussing lens, and which is adapted to direct the second laser beam onto said focussing lens at a varying incident angle causing the focussing lens to image the second laser beam onto the imaging surface such that, during relative rotation between the deflector and the cylinder, the focussing spot of the second laser beam is fixed relative to the optical axis.